II.

PROPOSED SUGGESTED CONTROL MEASURE

In this chapter, we provide a plain English discussion of the staff's proposed suggested control measure (SCM) for architectural coatings, which is contained in Appendix A. All sections of the proposed SCM are discussed below. Where applicable, key terms or concepts of the proposed SCM are discussed.

This is the first updating of this SCM since 1989. Where applicable, we discuss where the proposed SCM's provisions differ from those of the 1989 SCM. However, it is important to point out that in developing the proposed SCM, staff approached this as a new SCM, not as amendments to the 1989 SCM. Accordingly, staff evaluated the technical and commercial feasibility of the proposed VOC limits for all of the categories, not just those that differ from the 1989 SCM. For the reader's information, the 1989 SCM is contained in Appendix B.

Control of emissions from architectural coatings is primarily the responsibility of the local air pollution control districts and air quality management districts, collectively referred to as districts. The proposed SCM may be used as a model by the districts when adopting and amending their local architectural coatings rules. Accordingly, throughout the staff report references are made to the most common or most restrictive district VOC limits, since the district rules are the enforceable regulations.

Although the proposed SCM does not currently contain an averaging provision, we are continuing to work with all interested parties to develop such a provision. We plan to include an averaging provision in the SCM that is presented to the Board at the June 22, 2000, public meeting.

A. APPLICABILITY

The proposed SCM, like the 1989 SCM, applies to manufacturers, distributors, and users of architectural coatings, and minor wording changes have been made to clarify applicability. Aerosol coatings are not considered architectural coatings and the aerosol coating exemption was reworded to emphasize this fact. The exemption for architectural coatings sold in containers of less than one liter has been further clarified by indicating that the exemption is based on volume. The 1989 SCM contains an exemption for emulsion-type bituminous pavement sealers, and that exemption has been deleted in the proposed SCM, to be consistent with U.S. EPA's national architectural coatings rule, and because those are very-low VOC products.

B. DEFINITIONS

To help clarify and enforce the proposed SCM, Section 2 of the proposed SCM provides new or revised definitions for terms used which are not self-explanatory. Forty-one architectural coatings categories are contained in the proposed SCM, some of which are further subcategorized. For example, the shellacs category is further subcategorized into clear and

opaque products, as is the fire-retardant coatings category. Due to the subcategorization of some categories, the proposed SCM defines 47 categories or subcategories of architectural coatings for which limits are proposed. These definitions are largely consistent with those in the South Coast AQMD's architectural coating rule (Rule 1113) and the National Rule, with a few exceptions.

While some of the product categories in the existing SCM are not found in the proposed SCM, no product categories have been eliminated. For example, products included in the below ground wood preservatives category in the 1989 SCM would be included in the wood preservatives category under the proposed SCM.

We are proposing to add definitions for 20 architectural coatings product categories that were not included in the 1989 SCM: antenna coatings; antifouling coatings; bituminous roof coatings; bituminous roof primers; clear brushing lacquers; faux finishing coatings; fire-resistive coatings; flat coatings; floor coatings; flow coatings; low solids coatings; non-flat coatings; non-flat high gloss; quick-dry enamels; quick-dry primers, sealers, and undercoaters; recycled coatings; rust preventative coatings; specialty primers, sealers, and undercoaters; temperature-indicator safety coatings; and waterproofing concrete/masonry sealers.

C. STANDARDS

The proposed SCM differs from the 1989 SCM by adding new product category definitions, VOC limits, and by adding more stringent VOC limits for some existing categories. A total of 47 VOC limits are proposed, most of which are consistent with the interim limits in South Coast AQMD's Rule 1113. The new or modified VOC limits, with the exception of the VOC limit for industrial maintenance coatings, would become effective on January 1, 2003. The VOC content limit for industrial maintenance coatings has a proposed effective date of January 1, 2004.

The table of standards in the proposed SCM, reprinted below as Table II-1, contains the proposed limits for maximum VOC content in each category of architectural coatings, and the proposed effective date. If the coating is represented in any way that indicates it can be used in more than one of the coating categories listed in Table II-1, then the lowest, or most restrictive, VOC content limit will apply. The most restrictive VOC content limit applies to all architectural coatings listed in Table II-1, with the exception of the following: lacquer coatings (including lacquer sanding sealers); metallic pigmented coatings; shellacs; fire-retardant coatings; pre-treatment wash primers; industrial maintenance coatings; low-solids coatings; wood preservatives; high - temperature coatings; temperature-indicator safety coatings; antenna coatings; antifouling coatings; flow coatings; and bituminous roof primers. Eleven of the 47 proposed VOC limits are more stringent than the most predominant existing district limits.

If a coating does not meet any of the definitions for the categories listed in Table II-1, that coating will be classified as either a flat or a non-flat coating, depending upon its gloss, and the corresponding VOC content limit will apply. In the 1989 SCM, all coatings not contained in the table of standards would have to meet a default VOC limit of 250 g/l.

Table II-1
VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS

Limits are expressed in grams of VOC per liter[a] of coating thinned to the manufacturer's maximum recommendation, excluding the volume of any water, exempt compounds, or colorant added to tint bases. "Manufacturer's maximum recommendation" means the maximum recommendation for thinning that is indicated on the label or lid of the coating container.

Coating Category	Effective 1/1/2003	Effective 1/1/2004
Flat Coatings	100	
Non-flat Coatings	150	
Non-flat Coatings High Gloss	250	
Specialty Coatings:		
Antenna Coatings	530	
Antifouling Coatings	400	
Bituminous Roof Coatings	300	
Bituminous Roof Primers	350	
Bond Breakers	350	
Clear Wood Coatings • Clear Brushing Lacquers • Lacquers (including lacquer sanding sealers) • Sanding Sealers (other than lacquer sanding sealers) • Varnishes	 680 550 350 350	
Concrete Curing Compounds	350	
Dry Fog Coatings	400	
Faux Finishing Coatings	350	
Fire-Resistive Coatings	350	
Fire-Retardant Coatings: • Clear • Opaque	 650 350	
Floor Coatings	250	

Coating Category	Effective 1/1/2003	Effective 1/1/2004
Flow Coatings	420	
Form-Release Compounds	250	
Graphic Arts Coatings (Sign Paints)	500	
High-Temperature Coatings	420	
Industrial Maintenance Coatings		250
Low Solids Coatings [b]	120	
Magnesite Cement Coatings	450	
Mastic Texture Coatings	300	
Metallic Pigmented Coatings	500	
Multi-Color Coatings	250	
Pre-Treatment Wash Primers	420	
Primers, Sealers, and Undercoaters	200	
Quick-Dry Enamels	250	
Quick-Dry Primers, Sealers, and Undercoaters	200	
Recycled Coatings	250	
Roof Coatings	250	
Rust Preventative Coatings	400	
Shellacs: • Clear • Opaque	 730 550	
Specialty Primers, Sealers, and Undercoaters	350	
Stains	250	
Swimming Pool Coatings	340	
Swimming Pool Repair and Maintenance Coatings	340	
Temperature-Indicator Safety Coatings	550	

Coating Category	Effective 1/1/2003	Effective 1/1/2004
Traffic Marking Coatings	150	
Waterproofing Sealers: • Concrete/Masonry • Wood	 400 250	
Wood Preservatives	350	

[a] Conversion factor: one pound VOC per gallon (U.S.) = 119.95 grams VOC per liter.
[b] Units are grams of VOC per liter (pounds of VOC per gallon) of coating, including water and exempt compounds.

Under the proposed SCM, an architectural coating listed in Table II-1 and manufactured prior to the effective date of the VOC content limit for that coating category may be sold, supplied, or offered for sale for up to three years after the effective date. This three-year time period is referred to as the "sell-through" period. The sell-through provision allows unlimited use of coatings manufactured prior to the effective dates of the proposed limits.

The Standards section of the proposed SCM also specifies that coating containers and any VOC-containing products used for cleaning or thinning are to be closed when not in use, and that coatings are not to be thinned to exceed the applicable VOC limit.

Special provisions regarding rust preventative coatings and industrial maintenance coatings are defined in the Standards section of the proposed SCM. For the industrial maintenance coatings, we are removing the residential restriction for their usage. This allows coatings such as permanent anti-grafitti coatings to be subject to the industrial maintenance limit instead of the more restrictive limits for flats or non-flats. Rust preventative coatings are not to be used in an industrial setting unless they comply with the VOC limit for industrial maintenance coatings.

Section 3.8 of the proposed SCM contains a special provision for certain industrial maintenance coatings used in the San Francisco Bay Area, the North Central Coast, or the North Coast Air Basins. This provision would allow limited use of industrial maintenance coatings with VOC contents up to 340 g/l. This provision is designed to address the need for higher VOC industrial maintenance coatings in areas with persistent fog and cold temperatures. This provision is primarily needed by essential public services agencies and industrial facilities located near the coast from Big Sur north. The maximum allowable loss in reductions from this provision would be five percent of the available reductions from strict compliance with the proposed 250 g/l VOC limit.

We are proposing a quantifiable cap on the loss in emission reductions from this provision to maximize the emission reductions achieved from the industrial maintenance category. We worked closely with the essential public services agencies in determining the total annual volume of 340 g/l coatings needed to meet their demand under these adverse conditions.

We then set a proposed cap which would allow for the use of over five times the coatings volume needed by the Department of Transportation in the San Francisco Bay Area Air Basin. This cap will ensure that sufficient volumes of 340 g/l coatings will be available via the petition process for all industrial users that need to use industrial maintenance coatings during persistent fog and cold temperature conditions.

D. CONTAINER LABELING REQUIREMENTS

In the 1989 SCM this section was titled Administrative Requirements. Many of the container labeling requirements in the proposed SCM are similar to those in the 1989 SCM. The proposed SCM, like the 1989 SCM, requires each manufacturer to label their coatings with a date code, thinning recommendations, VOC content, and, in the case of industrial maintenance coatings, conditions for use.

Minor wording changes have been made to the date code and thinning recommendations labeling requirements to indicate where on the container the information should be placed. The VOC content labeling requirement has been modified to pertain to the VOC content of the coating as supplied, rather than as applied. Language has been added to the VOC content labeling requirement to reflect the various methods that can be used to calculate VOC content, and to specify that the VOC content is to be displayed in grams of VOC per liter of coating.

The labeling requirement for industrial maintenance coatings has been revised. Industrial maintenance coatings, like all architectural coatings, must be labeled with date code, thinning recommendations, and VOC content. In addition, industrial maintenance coatings must be labeled in terms of use. The 1989 SCM requires that industrial maintenance coatings be labeled "Not for Residential Use" or "Not for Residential Use in California." The proposed SCM gives manufacturers greater flexibility by providing more allowable options for meeting the industrial maintenance labeling requirements. In addition, the restriction on residential use has been deleted.

Labeling requirements were added to the proposed SCM for the following coating categories: high-gloss non-flats; clear brushing lacquers; quick-dry enamels; rust preventative coatings; and specialty primers, sealers, and undercoaters. Clear brushing lacquers must bear the statements "For brushing application only" and "This product must not be thinned or sprayed." Quick-dry enamels must bear the words "Quick-Dry" and indicate the recoat time. Rust preventative coatings must bear the statement "For Metal Substrates Only." Non-flat high gloss coatings must include the words "High Gloss." The labels of specialty primers, sealers, and undercoaters must bear one or more descriptive statements indicating specific use conditions.

For the exact wording to be used to meet container labeling requirements, please refer to section 4.1 of the proposed SCM.

E. REPORTING REQUIREMENTS

Reporting requirements were added to the proposed SCM for the following coatings: clear brushing lacquers, rust preventative coatings, specialty primers, sealers, and undercoaters, recycled coatings, bituminous roof coatings, bituminous roof primers, and all coatings containing the toxic exempt compounds perchloroethylene or methylene chloride, regardless of the coating category. Manufacturers who sell coatings subject to reporting requirements must file a report with the Executive Officer of the ARB by April 1 of each year. This reporting will allow us to track the usage of products in categories with higher VOC limits broken out from a more general category and track usage of toxic exempt compounds. Future revisions to the SCM may be needed if we find that volumes of the reported coating categories significantly increase or there is an increase in the use of methylene chloride and perchloroethylene.

For all coating categories subject to reporting requirements, the annual report must include the number of gallons of product sold in California in the previous calendar year and an explanation of how the sales were calculated.

The annual report for coatings containing perchloroethylene or methylene chloride must include the number of gallons of product sold in California in the previous calendar year, in addition to the following: product brand name and product label with usage instructions; identification of product category; and the volume percent of perchloroethylene and/or methylene chloride in the coating.

F. COMPLIANCE PROVISIONS AND TEST METHODS

This section of the proposed SCM includes formulas for calculating the VOC content of architectural coatings. There are two formulas provided, one for calculating the VOC content of all architectural coatings other than low solids coatings, and one for calculating the VOC content of low solids coatings.

In addition to using the formulas provided for calculating the VOC content of coatings, manufacturers may use U.S. EPA Method 24, or an alternative test method, for all coatings except multicomponent methacrylate traffic marking coatings. If opting to use an alternative test method, the manufacturer must receive written approval from the district, the ARB, and the U.S. EPA. If there are discrepancies between the results of a Method 24 test and any other means of determining VOC content, Method 24 test results will prevail.

Manufacturers of multicomponent methacrylate traffic marking coatings shall use a modification of U.S. EPA Method 24 if they do not wish to use the formula provided in the proposed SCM to calculate VOC content.

Test methods for architectural coatings subject to the proposed SCM are also provided in this section. These include tests for flame spread, fire resistance, gloss, metal content, acid content, drying times, surface chalkiness, several tests for the determination of various exempt compounds, and methods for determining VOC content.